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## THE EFFECT OF ICE DIVING ON PERIPHERAL SKIN TEMPERATURE ON DIVERS WITH SPINAL CORD INJURY – A PRELIMINARY REPORT

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### Objectives

To monitor the influence of cold water on peripheral skin temperature after ice diving and subjectively estimate the feeling of cold before during and after the submersion in scuba divers with spinal cord injury (SCI).

### Methods

Eight scuba divers, four with and four without SCI, performed a short single dive under the ice in the wet outfit. The water temperature was 4 °C and average air 19°C. The peripheral skin temperature of the lower extremities was measured prior and after the exposure to ice conditions with two-canal thermometer. The feeling of cold was assessed before and afterwards with the numeric scale from one to ten (one means the lowest and ten the highest score).

### Results

The measured skin temperature of the big toes were 26.4±3.5°C, 25.5±6.8°C and 19.5±2.0°C, 19.7±3.4°C before and after the dive, for divers with and without SCI, respectively. The average numeric score of coldness before, during and after the dive were 2, 5.5 and 3.5 in the SCI group and 2.25, 4 and 2.5 in the healthy divers. In the two weeks proceeding the dive no urinary or respiratory infection was observed in participants with SCI.

### Conclusion

The preliminary results suggest that ice diving for people with SCI is not less dangerous regarding hypothermia than in the able ones. The difference in peripheral skin temperature is comparable although it is slightly higher with the SCI as it is the feeling of cold. It is worth to notice that the duration of cold after the dive was longer in the SCI group. However, more questions than answers appeared and the subject requires further investigation.